CPC COOPERATIVE PATENT CLASSIFICATION

B60G VEHICLE SUSPENSION ARRANGEMENTS (air-cushion vehicles B60V; { cycle suspensions B62K 25/00})

NOTE

Attention is drawn to the explanatory note following the class title B60

Indexing codes B60G 2200/00 to B60G 2800/00 are dedicated to particular aspects of suspension arrangements:

B60G 2200/00 refers to the type of suspension arrangement;

B60G 2202/00 refers to the suspension elements used (springs, dampers and actuators);

B60G 2204/00 refers to mounting features of suspension elements;

B60G 2206/00 refers to constructional and manufacturing details of suspension elements;

B60G 2300/00 refers to the type of vehicle;

B60G 2400/00 to B60G 2800/00 refer to the electronic control of suspension arrangements, whereby:

B60G 2400/00 refers to input parameters of the control;

B60G 2401/00 refers to types of sensors used;

B60G 2500/00 refers to the controlled action or device;

B60G 2600/00 refers to particular details of the control system;

B60G 2800/00 refers to the result to be achieved by the control action.

Groups B60G 2200/00 to B60G 2800/00 are to be used in multi-aspect classification, so that subject matter characterised by aspects covered by more than one of these groups, which is considered to represent information of interest for search, should be classified in a combination of at least one relevant "invention information" symbol in association with indexing codes from each of these groups.

WARNING

[C2010.03] The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

- B60G 23/00 covered by B60G 17/0165

B60G 1/00 Suspensions with rigid connection between axle and frame

B60G 1/02 . with continuous axle

B60G 1/04 . with divided axle

B60G 3/00 **Resilient suspension for a single wheel** (pivoted suspension arms per se, attachment thereof to sprung part of the vehicle, buffer means for limiting movement of arms B60G 7/00; {rigid axle suspensions B60G 9/00;} characterised by arrangement, location or type of springs B60G 11/00)

B60G 3/01 . the wheel being mounted for sliding movement, e.g. in or on a vertical guide (camber maintaining means B60G 3/26)

B60G 3/02 . with a single pivoted arm

B60G 3/04 . . the arm being essentially transverse to the longitudinal axis of the vehicle

B60G 3/06 . . . the arm being rigid

B60G 3/08 . . . . the arm forming the axle housing

B60G 3/10 . . . the arm itself being resilient, e.g. leaf spring {(B60G 7/003 takes precedence)}

B60G 3/12 . . the arm being essentially parallel to the longitudinal axis of the vehicle

B60G 3/14 . . . the arm being rigid

B60G 3/145 . . . . {the arm forming the axle housing}

B60G 3/16 . . . the arm itself being resilient, e.g. leaf spring {(B60G 7/003 takes precedence)}

B60G 3/18 . with two or more pivoted arms, e.g. parallelogram

B60G 3/185 . . {the arms being essentially parallel to the longitudinal axis of the vehicle}

B60G 3/20 . . all arms being rigid

B60G 3/202 . . . {having one longitudinal arm and two parallel transversal arms, e.g. dual-link type strut suspension}

B60G 3/205 . . . . {with the pivotal point of the longitudinal arm being on the vertical plane defined by the wheel rotation axis and the wheel ground contact point}

B60G 3/207 . . . {the arms being essentially parallel to the longitudinal axis of the vehicle}

B60G 3/22 . . . a rigid arm forming the axle housing

B60G 3/225 . . . . {the arm being of the trailing wishbone type}

B60G 3/24 . . . a rigid arm being formed by the live axle {(3B60G/22, B60G 3/26 take precedence; driving arrangements B60K 17/22, B60K 17/30, B60K 17/32)}

B60G 3/26 . . . Means for maintaining substantially-constant wheel camber during suspension movement; {Means for controlling the variation of the wheel position during suspension movement (B60G 3/202, B60G 3/22, B60G 7/003, B60G 7/006 take precedence; means for adjusting camber, castor, or toe-in B62D 17/00)}

B60G 3/265 . . . . {with a strut cylinder contributing to the suspension geometry by being linked to the wheel support via an articulation}

B60G 3/28 . . at least one of the arms itself being resilient, e.g. leaf spring [(N:B60G 7/003 takes precedence)]

B60G 3/285 . . . {the arm being essentially parallel to the longitudinal axis of the vehicle}

B60G 5/00 **Resilient suspensions for a set of tandem wheels or axles having interrelated movement**

B60G 5/005 . {the wheels being fixed on a non-pivotal structure, e.g. a sliding mount}

B60G 5/01 . the set being characterised by having more than two successive axles

B60G 5/02 . mounted on a single pivoted arm, {e.g. the arm being rigid}
B60G 5/025 . . {the arm being transverse to the longitudinal axis of the vehicle}
B60G 5/03 . . the arm itself being resilient, e.g. a leafspring (B60G 5/053 takes precedence)

B60G 5/04 . with two or more pivoted arms, the movements of which are resiliently interrelated, {e.g. the arms being rigid}
B60G 5/043 . . {the arms being transverse to the longitudinal axis of the vehicle}
B60G 5/047 . . { at least one arm being resilient, e.g. a leafspring (B60G 5/053 takes precedence)}
B60G 5/053 . . a leafspring being used as equilibration unit between two axle-supporting units
B60G 5/06 . . the arms turning on a common pivot {e.g. being rigid}
B60G 5/065 . . . {at least one arm being resilient}

B60G 7/00 **Pivoted suspension arms; Accessories thereof** (means for maintaining substantially constant wheel camber during suspension movement B60G 3/26; {articulations for wheels B60G 5/00; leaf spring attaching means B60G 11/10, B60G 11/12; trailing arm twist beam axle attaching means B60G 21/052; articulations in general F16C})

B60G 7/001 . {Suspension arms, e.g. constructional features (B60G 7/006 takes precedence)}
B60G 7/003 . . {of adjustable length}

B60G 7/005 . {Ball joints (B60G 7/006 takes precedence; for steering linkage B62D 7/16; ball joints per se F16C 11/06)}

B60G 7/006 . {Attaching arms to sprung or unsprung part of vehicle, characterised by comprising attachment means controlled by an external actuator, e.g. a fluid or electrical motor (B62D 7/146 takes precedence)}

B60G 7/008 . {Attaching arms to unsprung part of vehicle (B60G 7/005, B60G 7/006 take precedence)}

B60G 7/02 . Attaching arms to sprung part of vehicle {(B60G 7/006 takes precedence)}

B60G 7/04 . Buffer means for limiting movement of arms {(stops limiting fluid passage in fluid dampers F16F 9/49; stroke-limiting stops for fluid dampers F16F 9/58)}

B60G 9/00 **Resilient suspensions of a rigid axle or axle housing for two or more wheels** {(the axle being a part of a set of tandem axles B60G 5/00-B60G 5/065; with leaf springs B60G 11/02-B60G 11/08)}

B60G 9/003 . {the axle being rigidly connected to a trailing guiding device}

B60G 9/006 . {the axle being connected to two trailing arms with only one of them being rigidly connected to the axle}

B60G 9/02 . the axle or housing being pivotally mounted on the vehicle, {e.g. the pivotal axis being parallel to the longitudinal axis of the vehicle (B60G 9/003 takes precedence)}
B60G 9/022 . . {the axle having an imaginary pivotal point}

B60G 9/025 . . . {using linkages for the suspension of the axle allowing its lateral swinging displacement}

B60G 9/027 . . {the axle having either a triangular, a "T" or "U" shape and being directly articulated with the chassis only by its middle apex, e.g. De Dion suspension}

B60G 9/04 . { the axle or housing not being pivotally mounted on the vehicle (B60G 9/003 takes precedence)}

B60G 11/00 **Resilient suspensions characterised by arrangement, location or kind of springs** (single wheel suspension by pivoted arm resilient in itself B60G 3/00; adjusting spring characteristic B60G 17/00; springs per se F16F)

NOTE

The term "torsion bar" includes torsion tube or the like. The term "rubber" includes synthetic substitutes of a similar nature.

B60G 11/003 . {Lubrication devices for springs and dampers (vehicle lubrication devices in general B60R 17/00; for leaf springs in general F16F 1/24)}

B60G 11/006 . {Centrally located spring units, e.g. all wheels being connected to a common spring unit (B60G 5/00, B60G 17/033 take precedence)}

B60G 11/02 . having leaf spring only {(B60G 11/006 takes precedence)}

B60G 11/025 . . {reparing devices for leaf springs}

B60G 11/04 . . arranged substantially parallel to the longitudinal axis of the vehicle

B60G 11/06 . . arranged obliquely to the longitudinal axis of the vehicle

B60G 11/08 . . arranged substantially transverse to the longitudinal axis of the vehicle

B60G 11/10 . . characterised by means specially adapted for attaching the spring to axle or sprung part of the vehicle

B60G 11/107 . . . Sliding or rolling mountings

B60G 11/113 . . . Mountings on the axle (B60G 11/107 takes precedence)

B60G 11/12 . . . Links, pins, or bushes

B60G 11/125 . . . . {Multiple-eye arrangements}

B60G 11/14 . having helical, spiral or coil springs only {(B60G 11/006 takes precedence)}

B60G 11/15 . . Coil springs resisting deflection by winding up

B60G 11/16 . . characterised by means specially adapted for attaching the spring to axle or sprung part of the vehicle

B60G 11/18 . having torsion-bar springs only {(B60G 11/006 takes precedence; having rubber springs of the torsional-energy-absorption type B60G 11/23)}

NOTE

B60G 11/184 takes precedence over B60G 11/181 to B60G 11/183

B60G 11/181 . . {arranged in a plane parallel to the longitudinal axis of the vehicle}

B60G 11/182 . . {arranged in a plane oblique to the longitudinal axis of the vehicle}

B60G 11/183 .. {arranged in a plane transverse to the longitudinal axis of the vehicle}
B60G 11/184 .. {the torsion-bar consisting of a bundle of torsion elements}
B60G 11/185 ... {the elements being rods}
B60G 11/186 .... {of hexagonal cross-section}
B60G 11/187 ... {the elements being leaf-springs loaded by twisting}
B60G 11/188 ... {the elements being cables}
B60G 11/189 .. {the torsion spring consisting of a tube with a slit}
B60G 11/20 .. characterised by means specially adapted for attaching the spring to axle or sprung part of the vehicle

B60G 11/22 . having rubber springs only {(B60G 11/006 takes precedence)}
B60G 11/225 .. {Neidhart type rubber springs}
B60G 11/23 .. of the torsional-energy-absorption type
B60G 11/24 .. characterised by means specially adapted for attaching the spring to axle or sprung part of the vehicle

B60G 11/26 . having fluid springs only, e.g. hydropneumatic springs ({B60G 11/006,}B60G 15/12 take precedence)
B60G 11/265 .. {hydraulic springs}
B60G 11/27 .. wherein the fluid is a gas
B60G 11/28 .. characterised by means specially adapted for attaching the spring to axle or sprung part of the vehicle
B60G 11/30 .. having pressure fluid accumulator therefor, e.g. accumulator arranged in vehicle frame {(dampers accumulating utilisable energy B60G 13/14)}

B60G 11/32 . having springs of different kinds {(B60G 11/006 takes precedence)}
B60G 11/34 .. including leaf springs
B60G 11/36 ... and also helical, spiral or coil springs
B60G 11/38 ... and also rubber springs
B60G 11/40 .... the rubber springs being attached to the axle
B60G 11/42 .... the rubber springs being attached to sprung part of the vehicle
B60G 11/44 ... and also torsion-bar springs
B60G 11/46 ... and also fluid springs
B60G 11/465 .... {with a flexible wall}
B60G 11/48 .. not including leaf springs
B60G 11/50 ... having helical, spiral or coil springs, and also torsion-bar springs
B60G 11/52 ... having helical, spiral or coil springs, and also rubber springs
B60G 11/54 .... with rubber springs arranged within helical, spiral or coil springs
B60G 11/56 ... having helical, spiral or coil springs, and also fluid springs
B60G 11/58 .... arranged coaxially
B60G 11/60 ... having both rubber springs and torsion-bar springs
B60G 11/62 ... having both rubber springs and fluid springs
B60G 11/64 ... having both torsion-bar springs and fluid springs

B60G 13/00 **Resilient suspensions characterised by arrangement, location or type of vibration dampers** (adjusting damping effect B60G 17/06; vibration dampers per se F16F)

B60G 13/001 . {Arrangements for attachment of dampers (mounting arrangements of combined spring and damper units B60G 15/00; mountings of fluid dampers in general F16F 9/54)}

B60G 13/003 . . {characterised by the mounting on the vehicle body or chassis of the damper unit}

B60G 13/005 . . {characterised by the mounting on the axle or suspension arm of the damper unit}

B60G 13/006 . . . {on the stub axle}

B60G 13/008 . . . {involving use of an auxiliary cylinder (B60G 13/006 takes precedence)}

B60G 13/02 . having dampers dissipating energy, e.g. frictionally

B60G 13/04 . . mechanically, e.g. having frictionally-engaging springs as damping elements

B60G 13/06 . . of fluid type

B60G 13/08 . . . hydraulic

B60G 13/10 . . . pneumatic

B60G 13/12 . . . quasi-fluid, i.e. having powdered medium

B60G 13/14 . . having dampers accumulating utilisable energy, e.g. compressing air {(fluid springs with an accumulator B60G 11/30)}

B60G 13/16 . having dynamic absorber as main damping means, i.e. spring-mass system vibrating out of phase

B60G 13/18 . . combined with energy-absorbing means

B60G 15/00 **Resilient suspensions characterised by arrangement, location or type of combined spring and vibration damper, e.g. telescopic type** (combined spring and vibration-dampers per se F16F)

B60G 15/02 . having mechanical spring

B60G 15/04 . . and mechanical damper {or dynamic damper}

B60G 15/06 . . and fluid damper

B60G 15/061 . . . {with a coil spring being mounted inside the damper}

B60G 15/062 . . . {the spring being arranged around the damper (B60G 15/061, B60G 15/067, B60G 15/07 take precedence)}

B60G 15/063 . . . . {characterised by the mounting of the spring on the damper (B60G 15/065, B60G 15/066 take precedence)}

B60G 15/065 . . . . { characterised by the use of a combination of springs}

B60G 15/066 . . . . {the spring being different from a coil spring (B60G 15/065 takes precedence)}

B60G 15/067 . . . {characterised by the mounting on the vehicle body or chassis of the spring and damper unit}

B60G 15/068 . . . . {specially adapted for MacPherson strut-type suspension}

B60G 15/07 . . . the damper being connected to the stub axle and the spring being arranged around the damper {(B60G 15/068 takes precedence)}

B60G 15/08 . having fluid spring

B60G 15/10 . . and mechanical damper {or dynamic damper}

B60G 15/12 . . and fluid damper

B60G 15/14 . . . the damper being connected to the stub axle and the spring being arranged around the damper

B60G 17/00 **Resilient suspensions having means for adjusting the spring or vibration-damper characteristics, for regulating the distance between a supporting surface and a sprung part of vehicle or for locking suspension during use to meet varying vehicular or surface conditions, e.g. due to speed or load** {(levelling or stabilising systems for tippers B60P 1/045)}

B60G 17/002 . {by temperature regulation of the suspension unit, e.g. heat operated systems}

B60G 17/005 . Suspension locking arrangements {(for retractable wheels B62D 61/12)}

B60G 17/015 . the regulating means comprising electric or electronic elements ({B60G 17/002}, B60G 17/005 take precedence)

B60G 17/0152 . . { characterised by the action on a particular type of suspension unit (B60G 17/01941 takes precedence)}

B60G 17/0155 . . . {pneumatic unit}

B60G 17/0157 . . . {non-fluid unit, e.g. electric motor}

B60G 17/016 . . characterised by their responsiveness, when the vehicle is travelling, to specific motion, a specific condition, or driver input {B60G 17/017 takes precedence}

B60G 17/0161 . . . {mainly during straight-line motion (B60G 17/0164 takes precedence)}

B60G 17/0162 . . . {mainly during a motion involving steering operation, e.g. cornering, overtaking (B60G 17/0164 takes precedence)}

B60G 17/0163 . . . . {the control involving steering geometry, e.g. four-wheel steering}

B60G 17/0164 . . . {mainly during accelerating or braking}

B60G 17/0165 . . . {NPC8} to an external condition, e.g. rough road surface, side wind

B60G 17/017 . . characterised by their use when the vehicle is stationary, e.g. during loading, engine start-up or switch-off

B60G 17/018 . . characterised by the use of a specific signal treatment or control method

B60G 17/0182 . . . {involving parameter estimation, e.g. observer, Kalman filter}

B60G 17/0185 . . . for failure detection

B60G 17/019 . . characterised by the type of sensor or the arrangement thereof {**B60G 17/015P** takes precedence}

B60G 17/01908 . . . {Acceleration or inclination sensors (characterised by the use of gyroscopes B60G 21/08)}

B60G 17/01916 . . . . {Mercury-switch type devices}

B60G 17/01925 . . . . {Pendulum-type devices}

B60G 17/01933 . . . {Velocity, e.g. relative velocity-displacement sensors}

B60G 17/01941 . . . { characterised by the use of piezo-electric elements, e.g. sensors or actuators}

B60G 17/0195 . . characterised by the regulation being combined with other vehicle control systems {(Conjoint control of vehicle sub-units including control of suspension systems B60W 10/22)}

B60G 17/02 . Spring characteristics {e.g. mechanical springs and mechanical adjusting means}(B60G 17/005, B60G 17/015 take precedence)

B60G 17/021 .. {the mechanical spring being a coil spring (B60G 17/0272 takes precedence)}

B60G 17/023 .. {the mechanical spring being a leaf spring (B60G 17/0275 takes precedence)}

B60G 17/025 .. {the mechanical spring being a torsion spring (B60G 17/0277, B60G 21/0553 take precedence)}

B60G 17/027 .. Mechanical springs regulated by fluid means (B60G 17/033 takes precedence)

B60G 17/0272 ... {the mechanical spring being a coil spring}

B60G 17/0275 ... {the mechanical spring being a leaf spring}

B60G 17/0277 ... {the mechanical spring being a torsion spring (B60G 21/0553 takes precedence)}

B60G 17/033 .. characterised by regulating means acting on more than one spring

B60G 17/04 .. fluid spring characteristics

B60G 17/0408 ... { details, e.g. antifreeze for suspension fluid, pumps, retarding means per se}

B60G 17/0416 ... {regulated by varying the resiliency of hydropneumatic suspensions (B60G 17/048 takes precedence)}

B60G 17/0424 .... {by varying the air pressure of the accumulator}

B60G 17/0432 .... {by varying the number of accumulators connected to the hydraulic cylinder (B60G 17/0424 takes precedence)}

B60G 17/044 ... Self-pumping fluid springs (pumps for liquids F04)

B60G 17/048 ... with the regulating means inside the fluid springs (B60G 17/044 takes precedence)

B60G 17/0485 .... {the springs being pneumatic springs with a flexible wall, e.g. with levelling valves}

B60G 17/052 ... Pneumatic spring characteristics (B60G 17/048 takes precedence {; valves per se F16K})

B60G 17/0521 .... {the spring having a flexible wall}

B60G 17/0523 .... {Regulating distributors or valves for pneumatic springs}

B60G 17/0525 ..... {Height adjusting or levelling valves}

B60G 17/0526 ..... {Distributor units, e.g. for retractable wheels (vehicles with retractable wheels per se B62D 61/12)}

B60G 17/0528 ..... {Pressure regulating or air filling valves}

B60G 17/056 ... Regulating distributors or valves {for hydropneumatic systems}(B60G 17/044 to B60G 17/048, {B60G 17/0416} take precedence; {Fluid interconnection systems to control vehicle inclination B60G 21/06, B60G 21/10}; valves per se F16K)

B60G 17/0565 .... {Height adjusting valves}

B60G 17/06 . Characteristics of dampers {e.g. mechanical dampers}(B60G 17/015 takes precedence)

B60G 17/08 .. Characteristics of fluid dampers (adjusting fluid dampers in general F16F 9/44 to F16F 9/53)

B60G 21/00 **Interconnection systems for two or more resiliently-suspended wheels, e.g. for stabilising a vehicle body with respect to acceleration, deceleration or centrifugal forces** (B60G 17/033 takes precedence; {levelling or stabilising systems for tippers B60P 1/045}; steering deflectable wheels combined with means for inwardly inclining the vehicle body on bends B62D 9/02)

B60G 21/002 . {longitudinally}

B60G 21/005 . {transversally}

B60G 21/007 . {means for adjusting the wheel inclination}

B60G 21/02 . permanently interconnected
B60G 21/023 . . {longitudinally}
B60G 21/026 . . {transversally}
B60G 21/04 . . mechanically
B60G 21/045 . . . between wheels on different axles on the same side of the vehicle, i.e. the left or the right side
B60G 21/05 . . . between wheels on the same axle but on different sides of the vehicle, i.e. the left and right wheel suspensions being interconnected
B60G 21/051 . . . . {Trailing arm twist beam axles}
B60G 21/052 . . . . . {Mounting means therefor}
B60G 21/053 . . . . . {adjustable}
B60G 21/055 . . . . Stabiliser bars
B60G 21/0551 . . . . . {Mounting means therefor}
B60G 21/0553 . . . . . {adjustable}
B60G 21/0555 . . . . . {including an actuator inducing vehicle roll}
B60G 21/0556 . . . . . {including a releasable coupling (B60G 21/0555 takes precedence)}
B60G 21/0558 . . . . . {including means varying the stiffness of the stabiliser (B60G 21/0556 takes precedence)}
B60G 21/06 . . fluid
B60G 21/067 . . . between wheels on different axles on the same side of the vehicle, i.e. the left or the right side
B60G 21/073 . . . between wheels on the same axle but on different sides of the vehicle, i.e. the left and right wheel suspensions being interconnected
B60G 21/08 . . characterised by use of gyroscopes (gyroscopes for stabilising vehicle bodies without controlling suspension arrangements B62D 37/06)

B60G 21/10 . not permanently interconnected, e.g. operative only on acceleration, only on deceleration or only at off-straight position of steering
B60G 21/103 . . {longitudinally}
B60G 21/106 . . {transversally}

B60G 99/00 Subject matter not provided for in other groups of this subclass

B60G 99/002 . { Suspension details of the suspension of the vehicle body on the vehicle chassis}

B60G 99/004 . { Other suspension arrangements with rubber springs}

B60G 99/006 . { Other suspension arrangements with metallic springs}

B60G 99/008 . { Other suspension arrangements with fluid springs}

B60G 2200/00 **Indexing codes relating to suspension types**

B60G 2200/10 . Independent suspensions
B60G 2200/13 . . with longitudinal arms only
B60G 2200/132 . . . with a single trailing arm
B60G 2200/1322 . . . . with a wishbone or triangular arm
B60G 2200/1324 . . . . with a resilient trailing arm
B60G 2200/14 . . with lateral arms
B60G 2200/141 . . . with one trailing arm and one lateral arm only
B60G 2200/142 . . . with a single lateral arm, e.g. MacPherson type
B60G 2200/1422 . . . . the lateral arm being resilient
B60G 2200/1424 . . . . the lateral arm having an L-shape
B60G 2200/143 . . . with lateral arms crossing each other, i.e. X formation as seen along the longitudinal axis
B60G 2200/144 . . . with two lateral arms forming a parallelogram
B60G 2200/1442 . . . . including longitudinal rods
B60G 2200/154 . . . the lateral arm having an L-shape
B60G 2200/156 . . . wishbone-type arm formed by two links defining a virtual apex
B60G 2200/17 . . with a strut contributing to the suspension geometry by being articulated onto the wheel support
B60G 2200/18 . . Multilink suspensions, e.g. elastokinematic arrangements
B60G 2200/182 . . . with one longitudinal arm or rod and lateral rods
B60G 2200/184 . . . Assymetric arrangements

B60G 2200/20 . Semi-rigid axle suspensions
B60G 2200/21 . . Trailing arms connected by a torsional beam, i.e. twist-beam axles
B60G 2200/22 . . Trailing arms connected by a straight torsion bar
B60G 2200/23 . . Trailing arms connected by a U-shaped torsion bar
B60G 2200/24 . . Interconnected split axles

B60G 2200/30 . Rigid axle suspensions
B60G 2200/31 . . with two trailing arms rigidly connected to the axle
B60G 2200/312 . . with one of the two trailing arms being rigidly connected to the axle
B60G 2200/314 . . with longitudinally arranged arms articulated on the axle
B60G 2200/315 . . . at least one of the arms having an A or V shape
B60G 2200/318 . . two or more axles being mounted on a longitudinal rocking or walking beam
B60G 2200/32 . . pivoted
B60G 2200/322 . . . with a single pivot point and a straight axle
B60G 2200/324 . . . with a single pivot point and a triangular "T" or "U"-shaped axle, e.g. DeDion arrangement
B60G 2200/326 . . . with two laterally spaced pivots, e.g. trailing frame
B60G 2200/34 . . Stabilising mechanisms, e.g. for lateral stability
B60G 2200/341 . . . Panhard rod

B60G 2200/3415 .... Scott-Russel linkage
B60G 2200/342 ... Watt linkage
B60G 2200/343 ... with an axle suspended by two pivoted rods in "V"-arrangement, the rods being coupled at its apex
B60G 2200/344 ... with an axle suspended by two pivoted rods in an inverted "V"-arrangement, the rods being coupled at its apex
B60G 2200/345 ... with an axle suspended by two pivoted rods in "X"-arrangement
B60G 2200/346 ... with an axle suspended by two laterally displaced rods having an imaginary point of intersection above the wheel axis
B60G 2200/347 ... with an axle suspended by two laterally displaced rods having an imaginary point of intersection below the wheel axis

B60G 2200/40 . Indexing codes relating to the wheels in the suspensions
B60G 2200/42 .. Driven wheels or dead axles
B60G 2200/422 .. Driving wheels or live axles
B60G 2200/44 .. steerable
B60G 2200/445 .. Self-steered wheels
B60G 2200/446 .. Non-steerable wheels
B60G 2200/46 .. camber angle
B60G 2200/462 .. Toe-in/out
B60G 2200/4622 ... Alignment adjustment
B60G 2200/464 .. Caster angle
B60G 2200/466 .. Damping acceleration or deceleration torque on wheel axle

B60G 2202/00 Indexing codes relating to the type of spring, damper or actuator

B60G 2202/10 . Type of spring
B60G 2202/11 .. Leaf spring
B60G 2202/112 ... longitudinally arranged
B60G 2202/114 ... transversally arranged
B60G 2202/116 ... having a "C" form loaded only at its ends transversally to its central axis
B60G 2202/117 ... having a "C" form loaded parallel to its central axis
B60G 2202/12 .. Wound spring
B60G 2202/122 ... subjected to tension
B60G 2202/13 .. Torsion spring
B60G 2202/132 ... comprising a longitudinal torsion bar and/or tube
B60G 2202/134 ... comprising a transversal torsion bar and/or tube
B60G 2202/135 ... Stabiliser bar and/or tube
B60G 2202/1351 .... comprising at least two stabiliser bars parallel to each other
B60G 2202/136 ... Twist-beam type arrangement
B60G 2202/1362 .... including a second torsional element, e.g. second beam, stabiliser bar or tube

B60G 2202/14 . . Plastic spring, e.g. rubber
B60G 2202/141 . . . subjected to tension
B60G 2202/142 . . . subjected to shear, e.g. Neidhart type
B60G 2202/1422 . . . . Axial
B60G 2202/1424 . . . . Torsional
B60G 2202/143 . . . subjected to compression
B60G 2202/144 . . . of rotary type
B60G 2202/15 . . Fluid spring
B60G 2202/152 . . . Pneumatic spring
B60G 2202/1522 . . . . of rotary type
B60G 2202/1524 . . . . with two air springs per wheel, arranged before and after the wheel axis
B60G 2202/154 . . . with an accumulator
B60G 2202/16 . . Magnetic spring

B60G 2202/20 . Type of damper
B60G 2202/21 . . with two dampers per wheel, arranged before and after the wheel axis
B60G 2202/22 . . Rotary Damper
B60G 2202/23 . . Friction Damper
B60G 2202/24 . . Fluid damper
B60G 2202/242 . . . Pneumatic damper
B60G 2202/25 . . Dynamic damper

B60G 2202/30 . Spring/Damper and/or actuator Units
B60G 2202/31 . . with the spring arranged around the damper, e.g. MacPherson strut
B60G 2202/312 . . . The spring being a wound spring
B60G 2202/314 . . . The spring being a pneumatic spring
B60G 2202/32 . . The spring being in series with the damper and/or actuator
B60G 2202/322 . . . the damper being controllable

B60G 2202/40 . Type of actuator
B60G 2202/41 . . Fluid actuator
B60G 2202/412 . . . Pneumatic actuator
B60G 2202/413 . . . Hydraulic actuator
B60G 2202/414 . . . using electrohydraulic valves
B60G 2202/415 . . . using other types of valves, e.g. mechanically operated valves
B60G 2202/416 . . . using a pump, e.g. in the line connecting the lower chamber to the upper chamber of the actuator
B60G 2202/42 . . Electric actuator
B60G 2202/422 . . . Linear motor
B60G 2202/424 . . . electrostrictive materials, e.g. piezoelectric actuator
B60G 2202/43 . . Mechanical actuator
B60G 2202/432 . . . Spring motor
B60G 2202/44 . . Axial actuator, e.g. telescopic

B60G 2202/441 . . . where axial movement is translated to rotation of the connected end part
B60G 2202/442 . . Rotary actuator
B60G 2202/45 . . Other types, e.g. external jets for stability with particular characteristics
B60G 2202/49 . . Other type, e.g. external jets for stability

B60G 2204/00 Indexing codes related to suspensions per se or to auxiliary parts

B60G 2204/10 . Mounting of suspension elements
B60G 2204/11 . . Mounting of sensors thereon
B60G 2204/111 . . . on pneumatic springs
B60G 2204/112 . . . on dampers, e.g. fluid dampers
B60G 2204/113 . . . Tyre related sensors
B60G 2204/114 . . . Steering column mounted sensors
B60G 2204/115 . . . Wheel hub bearing sensors
B60G 2204/116 . . . Sensors coupled to the suspension arm
B60G 2204/1162 . . . . directly mounted on the suspension arm
B60G 2204/12 . . Mounting of springs or dampers
B60G 2204/121 . . . Mounting of leaf springs
B60G 2204/122 . . . Mounting of torsion springs
B60G 2204/1222 . . . . Middle mounts of stabiliser on vehicle body or chassis
B60G 2204/1224 . . . . End mounts of stabiliser on wheel suspension
B60G 2204/1226 . . . . on the trailing arms of a twist beam type arrangement
B60G 2204/124 . . . Mounting of coil springs
B60G 2204/1242 . . . . on a damper, e.g. MacPerson strut
B60G 2204/12422 . . . . . anchoring the end coils on the spring support plate
B60G 2204/1244 . . . . on a suspension arm
B60G 2204/1246 . . . . on twist beam axles
B60G 2204/125 . . . Mounting of rubber type springs
B60G 2204/126 . . . Mounting of pneumatic springs
B60G 2204/1262 . . . . on a damper
B60G 2204/127 . . . with the mounting of springs or dampers moving so that the direction of the related force vector can be changed, thus contributing to a variation of the loading of the wheel
B60G 2204/128 . . . Damper mount on vehicle body or chassis
B60G 2204/129 . . . Damper mount on wheel suspension or knuckle
B60G 2204/13 . . . with the spring, i.e. coil spring, or damper horizontally mounted
B60G 2204/1302 . . . . inside the vehicle frame
B60G 2204/14 . . Mounting of suspension arms
B60G 2204/143 . . . on the vehicle body or chassis
B60G 2204/1431 . . . . of an L-shaped arm
B60G 2204/1432 . . . . by vertical bolts or studs
B60G 2204/1434 . . . . in twist-beam axles arrangement

B60G 2204/147 . . . on the vehicle engine body
B60G 2204/148 . . . on the unsprung part of the vehicle, e.g. wheel knuckle or rigid axle
B60G 2204/1482 . . . . on rigid axle by elastic mount
B60G 2204/1484 . . . . on an intermediate upright strut upon which the stub axle is pivoted
B60G 2204/149 . . . Mounting of rigid axle on wheel knuckle
B60G 2204/15 . . Mounting of subframes
B60G 2204/16 . . Mounting of vehicle body on chassis
B60G 2204/162 . . . Cabins, e.g. for trucks, tractors
B60G 2204/17 . . Mounting of bogies, e.g. for trailers
B60G 2204/18 . . Mounting of vehicle engines
B60G 2204/182 . . . Electric motor on wheel support
B60G 2204/19 . . Mounting of transmission differential
B60G 2204/20 . . Mounting of accessories, e.g. pump, compressor
B60G 2204/201 . . . of fluid lines
B60G 2204/202 . . . of cables
B60G 2204/2022 . . . . using a suspension element (e.g. link, damper or spring) as part of the electrical circuitry
B60G 2204/22 . . Linking of trailers to trucks, e.g. truck-trailer connections
B60G 2204/30 . . In-wheel mountings

B60G 2204/40 . Auxiliary suspension parts; Adjustment of suspensions
B60G 2204/41 . . Elastic mounts, e.g. bushings
B60G 2204/4102 . . . having a pin or stud extending perpendicularly to the axis of the elastic mount
B60G 2204/4103 . . . having an eccentrically located inner sleeve
B60G 2204/4104 . . . Bushings having modified rigidity in particular directions
B60G 2204/41042 . . . . by using internal cam surfaces
B60G 2204/41043 . . . . formed by a U-shaped external bracket
B60G 2204/41044 . . . . in a shell for being loaded mainly in axial direction, e.g. piston rod mounts, longitudinal push-pull rod mounts
B60G 2204/41046 . . . . having the axis of an inner sleeve or pin inclined to the axis of the bush
B60G 2204/4106 . . . Elastokinematic mounts
B60G 2204/41062 . . . . hydromounts; interconnected mounts
B60G 2204/4108 . . . Resilient element being enclosed and or pres-tressed in a solid container
B60G 2204/414 . . Cardan joints
B60G 2204/416 . . Ball or spherical joints
B60G 2204/418 . . Bearings, e.g. ball or roller bearings
B60G 2204/419 . . Gears
B60G 2204/4191 . . . Planetary or epicyclic gears
B60G 2204/4192 . . . rack and pinion
B60G 2204/4193 . . . worm gears
B60G 2204/42 . . Joints with cam surfaces
B60G 2204/421 . . Pivoted lever mechanisms for mounting suspension elements, e.g. Watt linkage
B60G 2204/422 . . Links for mounting suspension elements

B60G 2204/4222 . . . for movement on predefined locus of, e.g. the wheel center
B60G 2204/423 . . Rails, tubes, or the like, for guiding the movement of suspension elements
B60G 2204/4232 . . . Sliding mounts
B60G 2204/424 . . Mechanisms for force adjustment, e.g. constant force mechanisms
B60G 2204/43 . . Fittings, brackets or knuckles
B60G 2204/4302 . . . for fixing suspension arm on the vehicle body or chassis
B60G 2204/4304 . . . Bracket for lower cylinder mount of McPherson strut
B60G 2204/4305 . . . Bracket for mounting of hydraulic lines on a damper cylinder
B60G 2204/4306 . . . Bracket or knuckle for rigid axles, e.g. for clamping
B60G 2204/43065 . . . . U-shaped bolts crossing each other
B60G 2204/4307 . . . Bracket or knuckle for torsional springs
B60G 2204/4308 . . . Protecting guards, e.g. for rigid axle damage protection
B60G 2204/44 . . Centering or positioning means
B60G 2204/4402 . . . Spacers or shims
B60G 2204/4404 . . . Retainers for holding a fixing element, e.g. bushing, nut, bolt etc., until it is tightly fixed in position
B60G 2204/45 . . Stops limiting travel
B60G 2204/4502 . . . using resilient buffer
B60G 2204/45021 . . . . for limiting upper mount movement of a McPherson strut
B60G 2204/4504 . . . using cable or band to prevent extension
B60G 2204/46 . . Means for locking the suspension
B60G 2204/4602 . . . Locking of a McPerson type strut upper mount on the vehicle body
B60G 2204/4604 . . . mechanically, e.g. using a hook as anticreep mechanism
B60G 2204/4605 . . . hydraulically, e.g. interrupting communication between the chambers of a hydraulic cylinder
B60G 2204/47 . . Means for retracting the suspension
B60G 2204/4702 . . . pneumatically

B60G 2204/61 . Adjustable during maintenance

B60G 2204/62 . Adjustable continuously, e.g. during driving

B60G 2204/80 . Interactive suspensions; arrangement affecting more than one suspension unit
B60G 2204/81 . . front and rear unit
B60G 2204/8102 . . . diagonally arranged
B60G 2204/82 . . left and right unit on same axle
B60G 2204/83 . . Type of interconnection
B60G 2204/8302 . . . Mechanical
B60G 2204/83022 . . . . using cables, wires, belts or chains
B60G 2204/8304 . . . using a fluid
B60G 2204/8306 . . . Permanent; Continuous

B60G 2206/00 Indexing codes related to the manufacturing of suspensions: constructional features, the materials used, procedures or tools

B60G 2206/01 . Constructional features of suspension elements, e.g. arms, dampers, springs
B60G 2206/011 . . Modular constructions
B60G 2206/0112 . . . Bogies for heavy vehicles
B60G 2206/0114 . . . Independent suspensions on subframes
B60G 2206/0116 . . . Integrated distribution control units with valves, accumulators, PCB`s or the like
B60G 2206/012 . . Hollow or tubular elements
B60G 2206/0122 . . . having a U profile with plate closing the profile in the total or partial length of the element
B60G 2206/013 . . with embedded inserts for material reinforcement
B60G 2206/014 . . with reinforcing nerves or branches
B60G 2206/016 . . allowing controlled deformation during collision
B60G 2206/017 . . forming an eye for the bushing
B60G 2206/10 . . Constructional features of arms
B60G 2206/11 . . . the arm being a radius or track or torque or steering rod or stabiliser end link
B60G 2206/111 . . . . of adjustable length
B60G 2206/1112 . . . . . Manually, for alignment purposes
B60G 2206/1114 . . . . . Self-adjustable during driving
B60G 2206/1116 . . . . . Actively adjustable during driving
B60G 2206/12 . . . with two attachment points on the sprung part of the vehicle
B60G 2206/121 . . . the arm having an H or X-shape
B60G 2206/122 . . . the arm having L-shape
B60G 2206/123 . . . the arm having T-shape
B60G 2206/124 . . . the arm having triangular or Y-shape, e.g. wishbone
B60G 2206/13 . . . with more than two attachment points on the sprung part of the vehicle
B60G 2206/14 . . . the arm forming a U-shaped recess for fitting a bush
B60G 2206/141 . . . . The recess being integrally or seamlessly formed
B60G 2206/15 . . . the arm being resilient
B60G 2206/16 . . . the arm having a U profile and/or made of a plate
B60G 2206/161 . . . . with middle section narrower than end section
B60G 2206/162 . . . . with a plate closing the profile in the total or partial length of the arm
B60G 2206/20 . . Constructional features of semi-rigid axles, e.g. twist beam type axles
B60G 2206/201 . . . with detachable cross beam and/or torsion stabiliser bar/tube
B60G 2206/202 . . . with a radially deformed tube as a cross member
B60G 2206/203 . . . with outwardly bent trailing arms to increase the width of the support or wheelbase
B60G 2206/30 . . Constructional features of rigid axles
B60G 2206/31 . . . Straight axle
B60G 2206/312 . . . Cranked axle
B60G 2206/32 . . . Hollow cross section
B60G 2206/40 . . Constructional features of dampers and/or springs
B60G 2206/41 . . . Dampers
B60G 2206/42 . . . Springs

B60G 2206/422 . . . . Accumulators for hydropneumatic springs
B60G 2206/4222 . . . . . with a flexible separating wall; Membrane construction
B60G 2206/424 . . . . Plunger or top retainer construction for bellows or rolling lobe type air springs
B60G 2206/426 . . . . Coil springs having a particular shape, e.g. curved axis, pig-tail end coils
B60G 2206/427 . . . . Stabiliser bars or tubes
B60G 2206/428 . . . . Leaf springs
B60G 2206/50 . . Constructional features of wheel supports or knuckles, e.g. steering knuckles, spindle attachments
B60G 2206/60 . . Subframe construction
B60G 2206/601 . . . Hanger bracket
B60G 2206/602 . . . Single transverse beam
B60G 2206/604 . . . with two parallel beams connected by cross members
B60G 2206/605 . . . Flexible constructions
B60G 2206/606 . . . Complex constructions
B60G 2206/70 . . Materials used in suspensions
B60G 2206/71 . . . Light weight materials
B60G 2206/7101 . . . . Fiber-reinforced plastics (FRP)
B60G 2206/7102 . . . . Aluminium alloys
B60G 2206/7103 . . . . Magnesium alloys
B60G 2206/7104 . . . . Thermoplastics
B60G 2206/71042 . . . . . Polyester elastomer
B60G 2206/71043 . . . . . Polyamid elastomer
B60G 2206/71044 . . . . . Soft nylon
B60G 2206/7105 . . . . Porous materials, ceramics, e.g. as filling material
B60G 2206/72 . . . Steel
B60G 2206/722 . . . . Plates
B60G 2206/724 . . . . Wires, bars or the like
B60G 2206/73 . . . Rubber; Elastomers
B60G 2206/80 . . Manufacturing procedures
B60G 2206/81 . . . Shaping
B60G 2206/8101 . . . . by casting
B60G 2206/81012 . . . . . by injection moulding
B60G 2206/8102 . . . . by stamping
B60G 2206/81022 . . . . . by forging
B60G 2206/8103 . . . . by folding or bending
B60G 2206/81035 . . . . . involving heating to relieve internal stresses
B60G 2206/8104 . . . . by drawing
B60G 2206/8105 . . . . by extrusion
B60G 2206/8106 . . . . by thermal treatment, e.g. curing hardening, vulcanisation
B60G 2206/81062 . . . . . to relieve internal stresses, e.g. during folding or bending
B60G 2206/8107 . . . . by hydroforming
B60G 2206/8108 . . . . by twisting

B60G 2206/8109 .... by rolling
B60G 2206/811 .... by cutting
B60G 2206/8111 .... by machining
B60G 2206/8112 .... by thermal spraying of molten material
B60G 2206/82 ... Joining
B60G 2206/8201 .... by welding
B60G 2206/82012 ..... Pressure welding
B60G 2206/82013 ..... Friction or heat welding
B60G 2206/82014 ..... Magnetic pulse welding (welding by magnetic pulse in general B23K 20/06)
B60G 2206/8205 .... by conical or compressed rubber clamping inserts as joining means
B60G 2206/8206 .... by riveting
B60G 2206/8207 .... by screwing
B60G 2206/8208 .... by hemming or seaming, e.g. by folding of the rim
B60G 2206/8209 .... by deformation
B60G 2206/82092 ..... by press-fitting
B60G 2206/821 .... by gluing
B60G 2206/83 ... Punching
B60G 2206/84 ... Hardening
B60G 2206/8401 .... Annealing
B60G 2206/8402 .... Quenching
B60G 2206/8403 .... Shot-peening
B60G 2206/85 ... Filament winding
B60G 2206/90 .. Maintenance
B60G 2206/91 ... Assembly procedures
B60G 2206/911 .... using a modification kit
B60G 2206/92 ... Tools or equipment used for assembling
B60G 2206/921 .... Coil spring compressor
B60G 2206/93 ... Tools used for adjustments
B60G 2206/931 .... McPherson strut positioning tool
B60G 2206/94 ... Tools used for supporting parts
B60G 2206/99 ... Suspension element selection procedure depending on loading or performance requirements, e.g. selection of damper, spring or bush

B60G 2300/00 Indexing codes relating to the type of vehicle

B60G 2300/02 . Trucks; Load vehicles
B60G 2300/022 .. Fork lift trucks, Clark
B60G 2300/024 .. Light trucks
B60G 2300/026 .. Heavy duty trucks
B60G 2300/0262 ... Multi-axle trucks

B60G 2300/03 . Silo or fluid transporting vehicles

B60G 2300/04 . Trailers
B60G 2300/042 . . Semi-trailers
B60G 2300/044 . . Truck-trailer connections

B60G 2300/06 . Cranes

B60G 2300/07 . Off-road vehicles

B60G 2300/08 . Agricultural vehicles
B60G 2300/082 . . Tractors
B60G 2300/083 . . Boom carrying vehicles, e.g. for crop spraying
B60G 2300/084 . . Ridable lawn mowers

B60G 2300/09 . Construction vehicles, e.g. graders, excavators

B60G 2300/10 . Railway vehicles
B60G 2300/102 . . having track following mechanismn for lateral stability

B60G 2300/12 . Cycles; Motorcycles
B60G 2300/122 . . Trikes
B60G 2300/124 . . Quads

B60G 2300/13 . Small sized city motor vehicles

B60G 2300/14 . Buses

B60G 2300/16 . Aeroplanes

B60G 2300/18 . Helicopters

B60G 2300/20 . Toys

B60G 2300/22 . Perambulators

B60G 2300/24 . Wheelchairs

B60G 2300/26 . Carts

B60G 2300/27 . Racing vehicles, e.g. F1

B60G 2300/28 . Amphibious vehicles

B60G 2300/30 . Load ramps

B60G 2300/32 . Track vehicles
B60G 2300/322 . . Snowmobiles

B60G 2300/34 . Ambulances

B60G 2300/36 . Independent Multi-axle long vehicles

B60G 2300/37 . Vehicles having steerable wheels mounted on a vertically moving column

B60G 2300/38 . Low or lowerable bed vehicles

B60G 2300/40 . Variable track or wheelbase vehicles
B60G 2300/402 . . Extra load carrying wheels, e.g. tag axles

B60G 2300/45 . Rolling frame vehicles

B60G 2300/50 . Electric vehicles; Hybrid vehicles

B60G 2300/60 . Vehicles using regenerative power

B60G 2400/00 Indexing codes relating to detected, measured or calculated conditions or factors

B60G 2400/05 . Attitude
B60G 2400/051 . . Angle
B60G 2400/0511 . . . Roll angle
B60G 2400/0512 . . . Pitch angle
B60G 2400/0513 . . . Yaw angle
B60G 2400/0514 . . . Wheel angle detection
B60G 2400/05142 . . . . Wheel camber
B60G 2400/05144 . . . . Wheel toe
B60G 2400/05146 . . . . Wheel caster
B60G 2400/0516 . . . Angular position of a suspension element
B60G 2400/05162 . . . . the element being a suspension arm
B60G 2400/052 . . Angular rate
B60G 2400/0521 . . . Roll rate
B60G 2400/0522 . . . Pitch rate
B60G 2400/0523 . . . Yaw rate
B60G 2400/053 . . Angular acceleration
B60G 2400/0531 . . . Roll acceleration
B60G 2400/0532 . . . Pitch acceleration
B60G 2400/0533 . . . Yaw acceleration

B60G 2400/10 . Acceleration; Deceleration
B60G 2400/102 . . vertical
B60G 2400/104 . . lateral or transversal with regard to vehicle
B60G 2400/1042 . . . using at least two sensors
B60G 2400/106 . . longitudinal with regard to vehicle, e.g. braking
B60G 2400/1062 . . . using at least two sensors

B60G 2400/20 . Speed
B60G 2400/202 . . Piston speed; Relative velocity between vehicle body and wheel
B60G 2400/204 . . Vehicle speed
B60G 2400/2042 . . . Lateral speed
B60G 2400/206 . . Body oscillation speed; Body vibration frequency
B60G 2400/208 . . of wheel rotation

B60G 2400/25 . Stroke; Height; Displacement
B60G 2400/252 . . vertical
B60G 2400/256 . . horizontal
B60G 2400/257 . . . transversal with regard to vehicle
B60G 2400/258 . . . longitudinal with regard to vehicle

B60G 2400/30 . Propulsion unit conditions
B60G 2400/302 . . Selected gear ratio; Transmission function
B60G 2400/304 . . . neutral position
B60G 2400/306 . . . overdrive
B60G 2400/31 . . Clutch condition
B60G 2400/32 . . Torque on propulsion shaft
B60G 2400/33 . . Throttle position
B60G 2400/34 . . Accelerator pedal position
B60G 2400/35 . . Position of fuel or air injector
B60G 2400/36 . . Functioning of turbocharger
B60G 2400/37 . . Brake pad or disc friction
B60G 2400/38 . . Speed of engine rotation
B60G 2400/382 . . . Ignition switch
B60G 2400/39 . . Brake pedal position

B60G 2400/40 . Steering conditions
B60G 2400/41 . . Steering angle
B60G 2400/412 . . . of steering wheel or column
B60G 2400/4122 . . . . Neutral position detection
B60G 2400/42 . . Steering torque
B60G 2400/44 . . Steering speed
B60G 2400/46 . . Steering frequency
B60G 2400/47 . . Rear wheel steering

B60G 2400/50 . Pressure
B60G 2400/51 . . in suspension unit
B60G 2400/512 . . . in spring
B60G 2400/5122 . . . . Fluid spring
B60G 2400/51222 . . . . . Pneumatic
B60G 2400/518 . . . in damper

B60G 2400/5182 .... Fluid damper
B60G 2400/52 .. in tyre

B60G 2400/60 . Load
B60G 2400/61 .. Load distribution
B60G 2400/62 .. Seat occupation; Passenger presence
B60G 2400/63 .. Location of the center of gravity
B60G 2400/64 .. Wheel forces, e.g. on hub, spindle or bearing

B60G 2400/70 . Temperature of vehicle part or in the vehicle
B60G 2400/71 .. of suspension unit
B60G 2400/712 ... of spring
B60G 2400/7122 .... Fluid spring
B60G 2400/716 ... of damper
B60G 2400/7162 .... Fluid damper
B60G 2400/72 .. in vehicle interior
B60G 2400/73 .. of other part than suspension unit
B60G 2400/732 ... of propulsion unit

B60G 2400/80 . Exterior conditions
B60G 2400/82 .. Ground surface
B60G 2400/821 ... Uneven, rough road sensing affecting vehicle body vibration
B60G 2400/822 ... Road friction coefficient determination affecting wheel traction
B60G 2400/8222 .... Hydroplaning
B60G 2400/823 ... Obstacle sensing
B60G 2400/824 ... Travel path sensing; Track monitoring
B60G 2400/84 .. Atmospheric conditions
B60G 2400/841 ... Wind
B60G 2400/842 ... Temperature
B60G 2400/8422 .... of air
B60G 2400/8424 .... of ground or road
B60G 2400/843 ... Humidity; Rainfall
B60G 2400/845 ... Darkness
B60G 2400/847 ... Sunshine; Light

B60G 2400/90 . Other conditions or factors
B60G 2400/91 .. Frequency
B60G 2400/92 .. Travelling or driving time
B60G 2400/922 .. Travelling distance
B60G 2400/94 .. Deformation of a vehicle part
B60G 2400/942 ... of vehicle body
B60G 2400/95 .. Position of vehicle body elements
B60G 2400/952 ... of door or bonnet

B60G 2400/954 . . . Wheelbase
B60G 2400/96 . . Presence, absence or inactivity of driver
B60G 2400/97 . . Relation between towing and towed vehicle, e.g. tractor-trailer combination
B60G 2400/972 . . . Angle of articulation
B60G 2400/98 . . Stabiliser movement

B60G 2401/00 Indexing codes relating to the type of sensors based on the principle of their operation

B60G 2401/10 . Piezoelectric elements

B60G 2401/11 . Electrostrictive transducers

B60G 2401/12 . Strain gauge
B60G 2401/122 . . Wheatstone bridge circuit

B60G 2401/14 . Photo or light sensitive means, e.g. Infrared
B60G 2401/142 . . Visual Display Camera, e.g. LCD
B60G 2401/144 . . Fiber optic sensor

B60G 2401/15 . Doppler effect

B60G 2401/16 . GPS track data

B60G 2401/17 . Magnetic/Electromagnetic
B60G 2401/172 . . Hall effect
B60G 2401/174 . . Radar
B60G 2401/176 . . Radio or audio sensitive means, e.g. Ultrasonic

B60G 2401/19 . Speech recognising means

B60G 2401/20 . Switches, e.g. mercury or ball type switches

B60G 2401/21 . Laser

B60G 2401/22 . Radioactivity sensitive materials

B60G 2401/23 . Memory materials

B60G 2401/24 . Heat sensitive materials; temperature gauge

B60G 2401/25 . Capacitance type, e.g. as level indicator

B60G 2401/26 . Resistance type, e.g. as level indicator

B60G 2401/27 . Gravitational, e.g. pendulum or axial movement type

B60G 2401/28 . Gyroscopes

B60G 2401/90 . Single sensor for two or more measurements
B60G 2401/902 . . the sensor being an xy axis sensor
B60G 2401/904 . . the sensor being an xyz axis sensor

B60G 2500/00 Indexing codes relating to the regulated action or device

B60G 2500/02 . Supply or exhaust flow rates; Pump operation
B60G 2500/022 . . Minimisation of pressure cavitation effects upon demand

B60G 2500/04 . using inertia type valves

B60G 2500/10 . Damping action or damper
B60G 2500/102 . . stepwise
B60G 2500/104 . . continuous
B60G 2500/106 . . duty rate
B60G 2500/11 . . Damping valves
B60G 2500/112 . . . Fluid actuation
B60G 2500/114 . . . pressure regulating valves
B60G 2500/116 . . . for damping pressure oscillations of the fluid in hydraulic lines

B60G 2500/20 . Spring action or springs
B60G 2500/201 . . Air spring system type
B60G 2500/2012 . . . Open systems
B60G 2500/2014 . . . Closed systems
B60G 2500/202 . . Height or leveling valve for air-springs
B60G 2500/2021 . . . Arrangement of valves
B60G 2500/2022 . . . with valve seat actuation for selectively adjusting neutral height
B60G 2500/203 . . Distributor valve units comprising several elements, e.g. valves, pump or accumulators
B60G 2500/204 . . Pressure regulating valves for air-springs
B60G 2500/2041 . . . for variable volume air springs, e.g. using accumulators as expansion chambers
B60G 2500/2042 . . . Air filling valves
B60G 2500/2043 . . . Wheatstone bridge type valve arrangements
B60G 2500/2044 . . . Air exhausting valves
B60G 2500/2046 . . . Pressure equalising valves between two units
B60G 2500/205 . . Air-compressor operation
B60G 2500/206 . . Variable pressure accumulators for hydropneumatic suspensions
B60G 2500/2062 . . . by varying the air-pressure of the accumulator
B60G 2500/2064 . . . by varying the number of accumulators connected in parallel to the hydraulic cylinder
B60G 2500/22 . . Spring constant

B60G 2500/30 . Height or ground clearance

B60G 2500/302 . . using distributor valves
B60G 2500/32 . . of only one vehicle part or side
B60G 2500/322 . . . only front part
B60G 2500/324 . . . only rear part
B60G 2500/326 . . . only left or right side

B60G 2500/40 . Steering
B60G 2500/42 . . Sensibility

B60G 2600/00 Indexing codes relating to particular elements, systems or processes used on suspension systems or suspension control systems

B60G 2600/02 . Retarders, delaying means, dead zones, threshold values, cut-off frequency, timer interruption

B60G 2600/04 . Means for informing, instructing or displaying
B60G 2600/042 . . Monitoring means
B60G 2600/0422 . . . involving data transmission, e.g. via satellite or GPS; for data monitoring, telemetry or platooning purposes
B60G 2600/044 . . Alarm means

B60G 2600/07 . Inhibiting means

B60G 2600/08 . Failure or malfunction detecting means
B60G 2600/082 . . Sensor drift
B60G 2600/084 . . Supervisory systems
B60G 2600/086 . . Redundant systems

B60G 2600/09 . Feedback signal

B60G 2600/11 . Feedforward signal

B60G 2600/12 . Sampling or average detecting; Addition or substraction
B60G 2600/122 . . Summation signal
B60G 2600/124 . . Error signal

B60G 2600/14 . Differentiating means, i.e. differential control

B60G 2600/16 . Integrating means, i.e. integral control

B60G 2600/17 . Proportional control, i.e. gain control
B60G 2600/172 . . Weighting coefficients or factors

B60G 2600/18 . Automatic control means
B60G 2600/181 . . Signal modulation; pulse-width, frequency-phase
B60G 2600/182 . . Active control means
B60G 2600/184 . . Semi-Active control means

B60G 2600/186 . . Analogue Controller Details and Signal Treatment
B60G 2600/187 . . Digital Controller Details and Signal Treatment
B60G 2600/1871 . . . Optimal control; Kalman Filters
B60G 2600/1872 . . . Observer; Luaponov function
B60G 2600/1873 . . . Model Following
B60G 2600/1874 . . . Modal analysis
B60G 2600/1875 . . . Other parameter or state estimation methods not involving the mathematical modelling of the vehicle
B60G 2600/1876 . . . Artificial intelligence
B60G 2600/1877 . . . Adaptive Control
B60G 2600/1878 . . . Neural Networks
B60G 2600/1879 . . . Fuzzy Logic Control
B60G 2600/188 . . Spectral analysis; Transformations
B60G 2600/1881 . . . Integral
B60G 2600/1882 . . . Fourier
B60G 2600/1883 . . . z-transform
B60G 2600/1884 . . . Laplace
B60G 2600/1885 . . . Euler equations
B60G 2600/189 . . Statistical analysis

B60G 2600/20 . Manual control or setting means
B60G 2600/202 . . using a remote, e.g. cordless, transmitter or receiver unit
B60G 2600/204 . . Joystick actuated suspension
B60G 2600/206 . . Control-by-wire

B60G 2600/21 . Self-controlled or adjusted

B60G 2600/22 . Magnetic elements
B60G 2600/24 . . permanent magnets
B60G 2600/26 . . Electromagnets; Solenoids

B60G 2600/28 . Temporary fluctuations

B60G 2600/41 . SISO system, i.e. single input - single output system

B60G 2600/43 . MIMO system, i.e. multi input - multi output system

B60G 2600/44 . Vibration noise suppression

B60G 2600/60 . Signal noise suppression; Electronic filtering means
B60G 2600/602 . . high pass
B60G 2600/604 . . low pass

B60G 2600/66 . Humidifying or drying means

B60G 2600/68 . Filtering means, e.g. fluid filters

B60G 2600/70 . Computer memory; Data storage, e.g. maps for adaptive control
B60G 2600/702 . . Parallel processing
B60G 2600/704 . . Electronic tags containing data, e.g. identification number of a component; Gain values for the control of the unit, etc.

B60G 2600/71 . Distributed control; Master - slave controllers; Remote control units

B60G 2600/72 . Cooling or warming means

B60G 2600/73 . Electrical control

B60G 2600/74 . Analog systems

B60G 2600/76 . Digital systems

B60G 2600/77 . A/D, D/A signal converters

B60G 2600/82 . duty rate function

B60G 2600/85 . Speed of regulation

B60G 2600/90 . other signal treatment means

B60G 2800/00 Indexing codes relating to the type of movement or to the condition of the vehicle and to the end result to be achieved by the control action

B60G 2800/01 . Attitude or posture control
B60G 2800/012 . . Rolling condition
B60G 2800/0122 . . . Roll rigidity ratio; Warping
B60G 2800/0124 . . . Roll-over conditions
B60G 2800/014 . . Pitch; Nose dive
B60G 2800/016 . . Yawing condition
B60G 2800/019 . . Inclination due to load distribution or road gradient
B60G 2800/0192 . . . longitudinal with regard to vehicle
B60G 2800/0194 . . . transversal with regard to vehicle

B60G 2800/16 . Running
B60G 2800/162 . . Reducing road induced vibrations
B60G 2800/164 . . Heaving; Squatting
B60G 2800/166 . . Platooning

B60G 2800/18 . Starting, accelerating
B60G 2800/182 . . Traction

B60G 2800/20 . Stationary vehicle
B60G 2800/202 . . kneeling, e.g. for letting passengers on/off

B60G 2800/203 . . lowering the floor for loading/unloading
B60G 2800/204 . . adjusting floor height to the loading ramp level
B60G 2800/2042 . . . using an anticreep mechanism to lock the height
B60G 2800/205 . . jacking-up for changing tyre or vehicle inspection

B60G 2800/21 . Traction, slip, skid or slide control
B60G 2800/212 . . Transversal; Side-slip during cornering
B60G 2800/213 . . by applying forward/backward torque on each wheel individually
B60G 2800/214 . . by varying the load distribution
B60G 2800/215 . . by applying a braking action on each wheel individually

B60G 2800/22 . Braking, stopping
B60G 2800/222 . . during collision
B60G 2800/224 . . automatically, based on dangerous living style
B60G 2800/226 . . automatically, based on stopping at a preset or target point position

B60G 2800/24 . Steering, cornering
B60G 2800/242 . . Obstacle avoidance manoeuvre
B60G 2800/244 . . Oversteer
B60G 2800/246 . . Understeer
B60G 2800/248 . . Neutral steering behaviour

B60G 2800/70 . Estimating or calculating vehicle parameters or state variables
B60G 2800/702 . . Improving accuracy of a sensor signal
B60G 2800/7022 . . . Calibration of a sensor, e.g. automatically
B60G 2800/704 . . predicting unorthodox driving conditions for safe or optimal driving

B60G 2800/80 . Detection or control after a system or component failure
B60G 2800/802 . . Diagnostics

B60G 2800/85 . System Prioritisation

B60G 2800/87 . System configuration based on vehicle type or model

B60G 2800/90 . System Controller type
B60G 2800/91 . . Suspension Control
B60G 2800/912 . . . Attitude Control; levelling control
B60G 2800/9122 . . . . ARS - Anti-Roll System Control
B60G 2800/9123 . . . . Active Body Control (ABC)
B60G 2800/9124 . . . . Roll-over protection systems, e.g. for warning or control
B60G 2800/914 . . . Height Control System
B60G 2800/915 . . . Suspension load distribution
B60G 2800/916 . . . Body Vibration Control
B60G 2800/92 . . ABS - Brake Control
B60G 2800/922 . . . EBV - Electronic brake force distribution

B60G 2800/925	. .	Airbag deployment systems
B60G 2800/93	. .	Skid or slide control (ASR)
B60G 2800/94	. .	Electronic Stability Program (ESP, i.e. ABS+ASC+EMS)
B60G 2800/95	. .	Automatic Traction or Slip Control (ATC)
B60G 2800/952	. . .	Electronic driving torque distribution
B60G 2800/954	. . .	Four-wheel drive
B60G 2800/96	. .	ASC - Assisted or power Steering control
B60G 2800/962	. . .	Four-wheel steering
B60G 2800/963	. . .	Steer-by-wire
B60G 2800/964	. . .	Auto-navigation
B60G 2800/965	. . .	Automatic or driver-independent manoeuvre, e.g. for obstacle avoidance or roll-over prevention
B60G 2800/97	. .	Engine Management System (EMS)
B60G 2800/972	. .	Electronic Differential Lock (EDS)
B60G 2800/98	. .	Intelligent Transportation System or Bus (IDB)
B60G 2800/982	. .	Active Cruise Control, e.g. DISTRONIC type
B60G 2800/984	. .	Tyre Pressure Monitoring Systems